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SUMMARY

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SUMMARY

Agenda Item: D

Ukrainian SSR

THE ROLE OF ELECTRIFICATION IN THE INDUSTRIAL DEVELOPMENT OF THE COUNTRY

By N.M. OZNOBIN

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THE ROLE OF ELECTRIFICATION IN THE INDUSTRIAL DEVELOPMENT OF THE COUNTRY

N.M. Oznobin

S U M M A R Y

This paper deals with the importance of electrification for the industrial development of a country in general and shows the development of electrification in the USSR.

The paper gives reasons for the electrification as the foundation of the industrial development of any country. It shows the superiority of electric power over all other kinds of energy. All the main trends in engineering progress--comprehensive mechanisation and automation, telemechanisation and chemisation-- are due to an effective introduction of electric power into industrial producton. The application of electric power is indissoluble from the development of the latest brenches of industry and is very important for a steady growth of labour productivity.

All this is extremely vital for the development of industry because it is the largest consumer of electric power.

Large-scale electrification of production allows the fullest utilisation of the country's natural wealth, and draws into exploitation ever new deposits. This is especially important for underdeveloped districts which begin their development from electrification.

During the first stages of industrial electrification, hand and power drives were ousted by electrical drives. The second stage in electrification in industry is distinguished by the introduction of electric power into the manufacturing porcesses. As a result of comprehensive electrification oi the country electric power will become the basis for an all- round automatisation of all stages of production. both in the shpere of power processes and technology and in the sphere of control, regulation and account.

The second part of the paper describes how the Soviet Union, a formerly ruined and an extremely backward peasant country, has become within a brief period of time a foremost industrial power.

Pre-revolutionary Russia consumed very little electric energy: the electrification factor was only 35% and the electric power output barely exceeded 2,000,000 million kw-hr.

Today the electrification of operating machines in industry is nearly completed, about 27% of all industrial power consumption goes to electrify manufacturing processes. In 1961 the electric power output reached 327,000,000 million kw-hr, i.e., 163 times over the 1913 level.

Ever-greater prospects await power energetics during the period of the general perspective. In 1980 the USSR will produce 2,700,000,000-3,000,000,000 million kw-hr of electric power which is three times above the present output in the United States.

The period of the upbuilding of the material and technical basis of communism will be the period when the idea of the great Lenin on the comprehensive electrification of the country will be fully realised. All countries which have thrown away the fetters of colonial dependence can utilise the experience of the USSR in the field of electrification and make a much more rapid progress in their industrial development.

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